

In the Claims

1. (Currently Amended) A filter cartridge for filtering a slurry composition which comprises:

a hollow housing; a first end cap including an inlet; ~~and~~ a second end cap including an outlet, ~~said hollow housing being filled with a~~ ; an annular spacer having an open portion and a solid portion and depth filter material inside the housing, wherein said filter material is formed of at least two segments and separated by said annular spacer and said hollow housing being free of an open void volume having a height greater than about 1 inch upstream of said depth filter and the ratio of the height of said depth filter segments to the height of said annular spacers being between about 1:1 and about 5:1.

2. (Currently amended) The filter cartridge of Claim 1 wherein said ~~depth filter is formed of segments separated by~~ annular spacers have a thickness less than about 0.12 inches.

3. (Previously amended) The filter cartridge of Claim 2 wherein said depth filter segments comprise a wound depth filter comprising nonwoven fibers.

4. (Previously amended) The filter cartridge of Claim 2 wherein said depth filter segments comprise a stack of sheets wherein each sheet comprises nonwoven fibers.

5. (Previously amended) The filter cartridge of Claim 2 wherein said depth filter segments comprise a fibrous mass of nonwoven polymeric fibers secured together by mechanical entanglement of the fibers.

6. (Currently amended) The filter cartridge ~~of anyone~~ of any one of claims 2, 3, 4 or 5 wherein the ratio of depth filter segment thickness to spacer thickness is ~~form~~ from about 1.1:1 to about 5:1.

7. (Previously amended) The filter cartridge of Claim 6 wherein the ratio of depth filter segment thickness to spacer thickness is from about 1.5 to about 3:1
8. (Previously amended) The filter cartridge of any one of Claims 1, 2, 3, 4 or 5 wherein the housing is free of an open void volume downstream of said depth filter.
9. (Previously amended) The filter cartridge of any one of Claims 1, 2, 3, 4 or 5 wherein the depth filter inserted into the housing is precompressed into its final length.
10. (Withdrawn) The filter cartridge of any one of Claims 1, 2, 3, 4 or 5 wherein further comprising end caps secured to the ends of the cartridge by a mechanical device.
11. (Withdrawn) The filter cartridge of Claim 10 wherein the inner walls of the housing adjacent the ends of the housing have one or more slots formed therein, the end caps contain one or more C-rings and the C-rings secure the end caps to the housing by fitting at least partially into the one or more slots of the housing.
12. (Withdrawn) The filter cartridge of Claim 10 wherein the outer walls of the housing adjacent the ends of the housing have a flange formed thereon and the end caps are secured to the flange by a C-ring.
13. (Withdrawn) The filter cartridge of Claim 11 wherein the end caps are formed of two or more pieces known as the inner end cap piece and outer end cap piece and at least the inner end cap piece is secured by said to said housing.
14. (Withdrawn) The filter cartridge of Claim 13 wherein the outer end cap is secured to the inner cap piece.

15. (Previously amended) The filter cartridge of any one of claims 1, 2, 3, 4 or 5 wherein the media has a surface treatment selected from the group consisting of hydrophobicity, hydrophilicity or a positive or negative charge.

16. (Previously amended) A process for filtering a slurry which comprises passing a slurry through a filter cartridge as defined in any one of claims 1, 2, 3, 4, 5, 7, 11, 12 or 13 and;
recovering a filtered slurry from said cartridge.

17. (Original) The process of Claim 16, wherein said slurry is selected from the group consisting of a silica-based slurry. And alumina-based slurry, a ceria-based slurry, a diamond-based slurry, a MnO_2 -based slurry, a cell broth, a photoresist chemical, a fermentation liquid, blood, a blood fraction and a transgenic liquid.

18. (Withdrawn) The filter cartridge of Claim 1 wherein the depth filter inserted into the housing is precompressed into its final length before insertion into the housing.

19. (Cancelled) The filter cartridge of Claim 1 wherein the end caps are secured to the housing by a mechanical device.

20. (Cancelled) The filter cartridge of Claim 1 further comprising the inner walls of the housing adjacent the ends of the housing have one or more slots formed therein, the end caps contain one or more C-rings and the C-rings secure the end caps to the housing by fitting at least partially into the one or more slots of the housing.

21. (Cancelled) The filter cartridge of Claim 1 further comprising the outer walls of the housing adjacent the ends of the housing have a flange formed thereon, the end caps are secured to the flange by a C-ring.

22. (Cancelled) The filter cartridge of Claim 1 further comprising the end caps are formed of two or more pieces known as the inner end cap piece and outer end cap piece and the inner walls of the housing adjacent the ends of the housing have one or more slots formed therein and at least the inner end cap piece is secured by one or more C-rings at least partially fit into the one or more slots of the housing.

23. (Cancelled) The filter cartridge of Claim 1 further comprising the end caps are formed of two or more pieces known as the inner end cap piece and outer end cap piece and the inner walls of the housing adjacent the ends of the housing have one or more slots formed therein, the inner end cap piece is secured by one or more C-rings at least partially fit into the one or more slots of the housing and the outer end cap piece is secured to the inner cap piece.

24. (Cancelled) The filter cartridge of claim1 wherein the media has a surface treatment selected from the group consisting of hydrophobicity, hydrophilicity or a positive or negative charge.

25. (Withdrawn) The filter cartridge of Claim 12 wherein the end caps are formed of two or more pieces known as the inner cap piece and outer end cap piece and at least the inner end cap piece is secured by said to said housing.

26. (Withdrawn) A process for filtering a slurry which comprises passing a slurry through a filter cartridge as defined in Claim 11, and recovering a filtered slurry from said cartridge.

27. (Withdrawn) A process for filtering a slurry which comprises passing a slurry through a filter cartridge as defined in Claim12, 3 and recovering a filtered slurry from said cartridge.